INTRODUCTION

According to the National Cancer Information Center’s 2016 report, cancer accounted for 76,855 deaths and 27.9% of the mortality rate. Lung cancer (22.6% of all cancer deaths) had the highest mortality rate, followed by liver cancer (14.7%), gastric cancer (11.1%), colon cancer (10.9%), and pancreatic cancer (7.1%).

Lung cancer, which is clinically divided into small cell lung cancer and non-small cell lung cancer, has an estimated prevalence rate 80~85% and increasing.

According to domestic cancer mortality statistics in Korea, the prevalence rose from 137.5 per 100,000 people to 153.9 between 2007~2017, while data from the “10-year Plan for Cancer Control” showed that the five-year survival rate of lung cancer patients in Korea was 21.9% between 2008~2012. This is due to the development of chemotherapy and radiation therapy treatments to improve the longevity of lung cancer patients, which substantially affect their quality of life. Patients with advanced lung cancer report, in contrast to therapeutic outcomes, experiencing more harm when receiving chemotherapy.

Approximately 35.1% of cancer patients present with diverse reactions that range from normal emotional reactions (e.g., embarrassment, sadness, and fear) to mental health disorders (e.g., depression, anxiety, panic, social isolation, and existential crises) that result in psychological and social impairment. Experiencing a terminal illness, such as cancer, is a major stressor for patients, and has a significant impact on families. Thus, previous research focused on the negative consequences of cancer as perceived by patients. However, other studies, such as that of Tedeschi and Calhoun, emphasized efforts that give meaning to individual experiences.

Experiences of Inpatients Living with Lung Cancer in South Korea

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Purpose: This study aimed to examine the processes of adaptation lung cancer patients undergo by examining their social interactions with medical staff, families, and other patients during hospitalization. Methods: Data were collected from February 2017 to January 2018 for a qualitative research study based on in-depth interviews with 10 participants who were inpatients at a cancer treatment hospital. Data were analyzed using the grounded theory of Corbin and Strauss. Results: Through comparative analysis, we identified the central phenomenon of the study was, ‘living in a body that is not related to one’s own will.’ The causal conditions were, ‘hit by a bolt out of the blue’ and ‘a disease that I do not want to inform others of.’ The contextual conditions were, ‘an encounter with reality’ and ‘breaking down the wall of fear.’ The intervention conditions included, ‘finding comfort in adversity,’ ‘a loaf of bread is better than the song of many birds,’ and ‘the communion of the same situation.’ Action/interaction strategies included ‘sharing information,’ ‘a word of encouragement,’ and ‘accepting the wave of change.’ Finally, the perceived consequences were ‘life redesign’ and ‘a life journey with limited time.’ Conclusion: This study describes the processes underlying how patients find meaning in their lives after a diagnosis of lung cancer. Based on their experiences, it is necessary to offer nursing interventions including admission rooms, equipment, and instruments to meet the unique needs of patients. The findings indicate that inpatient treatment for lung cancer needs more meaningful and effective management.
experiences throughout life, processing stress and transforming negative outcomes using “post-traumatic growth.” As lung cancer is generally associated with smoking, lung cancer patients are often stigmatized by medical staff as well as their families, regardless of whether or not the patients smoke.9

Prior quantitative studies on nursing and lung cancer patients include “A study on the relationship between quality of life according to stigma perceived by lung cancer patients;”8 a study on factors influencing coping capacity of patients with advanced lung cancer;10 a study on the relationship between physiological factors, psychological factors, situational factors, symptom experience and functional status according to the discomfort theory;11 a study on the necessity of developing guidelines for telephone consultations about the symptoms experienced by cancer patients;12 and a study on the demographic and pathological functions of lung cancer patients.13

Prior qualitative studies involving lung cancer patients include “The hopelessness of the lung cancer patient”14 and “Experience of patients with lung cancer, participating in a self-help group.”15 Compared to quantitative studies, there have been few qualitative studies on the experience of inpatient hospitalization for lung cancer patients. Therefore, this study aimed to analyze and describe the process of how lung cancer patients adapt to and overcome their disease using reports of inpatient life experiences. The present study, based on developing a richer understanding of their experiences, explored ways to improve the quality of nursing care for patients hospitalized with lung cancer. To this end, this study uses an in-depth theory based on symbolic interactionism to identify experiences from the participants’ perspectives. Finally, this study further aims to provide basic data for the development of a practical theory by examining lung cancer patients’ experiences of hospitalization and the various meanings and structures associated with these experiences.

PURPOSE

This study identifies and examines patients’ experiences of adapting to and overcoming lung cancer by interacting with other patients, medical staff, and their families during hospitalization. As a goal of this study was to help develop nursing interventions by exploring how to assist lung cancer patients in various situations, we explored, analyzed in-depth, and described, from the participants’ perspectives, the experience of individuals hospitalized for lung cancer. Thus, the purpose of this study was to address our research question—“What are the experiences of inpatients living with lung cancer?”—and to develop a substantive theory by identifying and describing the semantic system of their experiences.

MATERIALS AND METHODS

1. Design

This study focused on lung cancer patients’ experiences during hospitalization. We used a qualitative study design utilizing Corbin and Strauss’s grounded theory to understand, describe, and explain the semantic system underlying inpatient experiences, by examining patients’ social interactions with medical staff, other patients, and their families, as well as their other experiences during hospitalization.

2. Participants

This study included 10 voluntary participants, who indicated their understanding by providing written informed consent. Participants had to be at least 19 years of age, admitted to the hospital with no communication problems (Table 1).

3. Data Collection

Data collection was performed through one-on-one, in-depth interviews conducted between February 2, 2017 and January 30, 2018. The number of interviews varied from one to three per participant. Interviews lasted between 20 to 30 minutes, depending on the patient’s health status. All interviews were conducted by the researchers. The interview sites were usually a private patient room or a hospital patient restroom, to protect patient privacy. In the initial interview, the researchers and participants shared a brief introduction and conversed over the participant’s general hospital life to establish rapport and a trusting relationship. Afterwards, in-depth interviews were conducted, starting with questions regarding the experience of being hospitalized for lung cancer. The interviews were conducted in a semi-structured manner, with the primary, open-ended question being, “How do you feel as an inpatient living with lung cancer?” Other open-ended questions that followed included “What is the difference between the care provided by nurses and your direct needs during your inpatient experience,” “What are your positive or negative experiences during hospitalization,” “What is the difference between life before and after hospitalization,” “What helped you most in the care provided by medical staff during your inpatient experience,” “What was the hardest thing about radiotherapy and
chemotherapy during your inpatient treatment for lung cancer,” and “What was the most or least supportive nursing care you received at this cancer specialty hospital?”

4. Data Analysis

The data were analyzed in depth. We understood the concepts and compared the similarities and differences between them. The data were collected and analyzed at the same time, resetting the direction of the interview. Additional interviews were conducted, if necessary. The analysis in the present study was conducted using the following steps: open coding, contextual data and process analysis, and category integration according to Corbin and Strauss. The open coding stage was conceptualized by classifying and comparing data using line by line analysis. Data were combined in new ways and relationships between categories were created while intersecting or linking the meanings of actions, events, and situations according to the information collected. Process analysis was used to explore the meaning of developing an action/interaction strategy in response to changes in circumstance or structural conditions. We identified how these developments changed over time and why they remained unaffected within the contextual framework.

To derive common experiences among participants, we analyzed the concepts and categories that appeared most frequently in the collected data. The theoretical framework was formed through an integrated process that refined the theoretical composition by connecting the categories surrounding the central phenomenon. In this process, the researchers identified the categories of the central phenomenon, contextual conditions, interventional conditions, action/interaction strategies, and consequences associated with experiences of receiving inpatient care for lung cancer. While conducting the study, notes were made to record the thoughts, interpretations, questions, directions, plans, themes, and hypotheses that emerged from participants. Notes and schematics were continuously applied to formulate visual representations of the relationships between concepts until the study was concluded.

5. Securing Rigor in Research and Preparedness of Researchers

The rigor of the results was based on the four items suggested by Lincoln and Guba: truth value, applicability, consistency, and neutrality. To ensure and increase the truth value, one of the researchers had over seven years of experience as a nurse in an oncology hospital. Participants were selected among patients hospitalized with lung cancer at a hospital that specialized in cancer treatment. The data were collected by conducting personal interviews with participants, and additional questions were later pursued to account for the interviews with insufficient information, at the convenience of the relevant participants. Two researchers repeatedly listened to recorded interviews and transcribed the participants’ statements. After the transcription, the researchers discussed the differences between their interviews and memos. Then, various participants were selected to collect abundant data on research topics related to practice (i.e., age, cancer stage, and gender). To ensure the fidelity of the data, data were collected until saturation (i.e., no new stories or experiences related to the research topic emerged during the personal interviews). Afterwards, the results were presented to three patients hospitalized for lung cancer who did not participate in this study to identify whether they agreed with the concepts which emerged.

Table 1. General characteristic of the Participants

<table>
<thead>
<tr>
<th>Participant No.</th>
<th>Gender</th>
<th>Year of disease diagnosis</th>
<th>Number of hospitalizations</th>
<th>Age</th>
<th>Main caregiver</th>
<th>Having religion</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>2015</td>
<td>4</td>
<td>50s</td>
<td>No</td>
<td>Buddhism</td>
<td>High school</td>
</tr>
<tr>
<td>2</td>
<td>Male</td>
<td>2017</td>
<td>1</td>
<td>50s</td>
<td>Yes</td>
<td>None</td>
<td>College</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>2013</td>
<td>30</td>
<td>60s</td>
<td>Yes</td>
<td>None</td>
<td>High school</td>
</tr>
<tr>
<td>4</td>
<td>Male</td>
<td>2015</td>
<td>20</td>
<td>50s</td>
<td>Yes</td>
<td>None</td>
<td>High school</td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>2017</td>
<td>5</td>
<td>60s</td>
<td>Yes</td>
<td>Buddhism</td>
<td>High school</td>
</tr>
<tr>
<td>6</td>
<td>Female</td>
<td>2017</td>
<td>15</td>
<td>50s</td>
<td>Yes</td>
<td>Christianity</td>
<td>High school</td>
</tr>
<tr>
<td>7</td>
<td>Male</td>
<td>2017</td>
<td>8</td>
<td>70s</td>
<td>Yes</td>
<td>Christianity</td>
<td>High school</td>
</tr>
<tr>
<td>8</td>
<td>Female</td>
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<td>25</td>
<td>50s</td>
<td>Yes</td>
<td>None</td>
<td>High school</td>
</tr>
<tr>
<td>9</td>
<td>Male</td>
<td>2015</td>
<td>2</td>
<td>40s</td>
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<td>College</td>
</tr>
<tr>
<td>10</td>
<td>Male</td>
<td>2017</td>
<td>1</td>
<td>70s</td>
<td>Yes</td>
<td>None</td>
<td>College</td>
</tr>
</tbody>
</table>
ensure consistency, two researchers compared and discussed the whole process of data analysis post data collection (peer debriefing), and tried to formulate a semantic system underlying participants’ experiences by reflecting on the data with a fresh perspective by suspending their judgment.

During the data analysis, we discussed the overall process with two nursing professors with extensive research experience in grounded theory to ensure the consistency of our thesis. Each step was obtained through repeated cycles of the process of open coding, axis coding, and selection coding on the collected interviews, memos, and schematics, as based on the methods of Corbin and Strauss. A paradigm model consisting of causal conditions, the central phenomenon, contextual conditions, interventional conditions, action/interaction strategies, and consequences were used to identify the potential relationships between categories of lung cancer patients’ inpatient experiences. To maintain the neutrality of the research, an impartial attitude was taken during the interviews, in which researchers listened while inhibiting their personal prejudices. In addition, to account for potential researcher bias, the researchers recorded reflective journals, citing the participants’ words directly so that the participants could verify the researchers’ interpretations and analyses. The results of the final analysis were disclosed to participants and feedback was given on their experiences.

6. Ethical Considerations

This study was approved by the K University Bioethics Committee (1040460-A-2016-043) and the Bioethics Committee of a cancer hospital in S city (K-1612-002-033) to ensure and protect the rights of participants. A recruitment notice was posted on the bulletin board of the hospital where the participants were admitted. Those who wished to participate in the study filled out an application form and submitted it to the research assistant. We explained the study’s necessity, purpose, method, interview process, anonymity guarantee, interruption of interviews, and recording of interviews to the participants before the interview began, and the participants voluntarily agreed to take part in the study. Furthermore, participants were informed that all interview data collected would be destroyed once the study was complete. Additional interviews were conducted for two participants for whom more data was needed.

As a result of the data analysis using grounded theory, 147 concepts and meaningful statements were extracted through open coding, and were subsequently integrated into 32 subcategories and 13 main categories (Table 2). According to in-depth continuous data analysis, the phrase “living in a body that is not related to one’s own will” was derived as the central phenomenon. The causal conditions were linked to the categories of having “a disease that I do not want to inform others of” and feeling “hit by a bolt out of the blue.” For contextual conditions, the categories “encounter with reality” and “breaking down the wall of fear” were derived. The intervening conditions included categories of “finding comfort in adversity,” “a loaf of bread is better than the song of many birds,” and “the communion of heart with heart.” Action/interaction strategies led to categories of “a word of encouragement,” “sharing information,” and “accepting the wave of change.” For consequences, the categories of “life redesign” and “a life journey with limited time” were derived (Figure 1).

1. Central Phenomenon: Living in a Body that Is Not Related to One’s Own Will

The central phenomenon of “living in a body that is not related to one’s own will” was revealed as the relationship between categories became clear, and the dimensions of the categories and the attributes of concepts were integrated into the experience of solving various problems faced by lung cancer inpatients. In addition, most lung cancer patients face pressure to be admitted to a hospital for the rest of their lives and not complete recovery. Moreover, patients face the psychological burden of dying in a hospital and the stress of the real possibility of their death at any given moment. In the course of this inpatient process, patients appeal not only to the stress of the disease, but also how uncomfortable they are with the environment of the hospital inpatient wards and following the directions of medical staff (including nurses and departments related to disease treatment). Conversely, some participants valued adhering to hospital policies and instructions, while 1 particular participant came to be convinced that the disease was his/her fate and adapted to hospital life. Some people do not want to tell others they are...
Participants diagnosed with lung cancer sometimes distance themselves from friends and relatives. Though the people that visit them act in an ordinary manner, some participants become self-conscious. This study found that participants reflect on themselves, ruminating over whether they were careless with their health prior to their lung cancer diagnosis and why their health deteriorated.

Now I’m thinking, anyway, I’ll be treated, discharged, and return to the hospital when it’s time. Someday I’ll die, but that’s my destiny. I think positively like that (Participant 2).

I’m here because I have to live. I should live, too...so I am just putting up with it and getting treated (Participant 7).

Since I was diagnosed with lung cancer, I’ve been avoiding my family, friends... and well, women, like this...I’m a little ashamed of everyone. I’m ashamed of my bad health. Honestly...that’s why I’m avoiding them (Participant 1).

2. Causal Conditions

1) A disease that I do not want to inform others of,

Some participants reported that they were shocked when they were

Table 2. Paradigm, Categories and Sub-categories of the in-patient Living with Lung Cancer

<table>
<thead>
<tr>
<th>Paradigm element</th>
<th>Categories</th>
<th>Sub categories</th>
</tr>
</thead>
</table>
| Central phenomenon | Living in a body that is not related to one’s own will | • Daily life in another world.  
• Resign oneself to one’s fate. |
| Casual conditions | Hit by a bolt out of the blue | • Vague fears come true.  
• A sudden appeared disease  
• Disease caused by indifference  
• Indifference to health in daily life.  
• Indifference to health due to occupational factors  
• Changes in family members’ mind due to diagnosis of illness  
• Vague speculation by family history of disease |
| Casual conditions | A disease that I don’t want to inform others | • Fear of being diagnosed with cancer  
• Awareness of disease  
• Changes in human relationships due to illness |
| Contextual conditions | Encountering with reality | • Difficulty of fasting  
• Adapting to irregular radiotherapy schedules  
• Discomfort due to irregular treatment time  
• Lack of explanation about side effects of treatment  
• Frustration due to absence of complete recovery |
| | Break down wall of fear | • Information request about progress of cancer  
• Information request according to progress of medical act  
• Lack of explanation about the disease from medical staffs |
| Intervention conditions | Finding comfort in adversity | • Difficult living due to being together with patients of different stage of illness in the same room  
• Stress at admission to intensive care unit and multi-patients room  
• Eating in the midst of sorrow  
• Strength supplement for overcoming disease |
| | A loaf of bread is better than the song of many birds | • Being aware of same situation as other patients |
| | The communion of same situation | |
| Action/Interaction strategies | Sharing information | • Information exchange with other patients  
• Need of emotional support of nurses |
| | A word of encouragement | • Detailed explanation about the disease  
• Explanation according to the state of disease  
• A detailed description of the provision of care |
| | Accepting the wave of change | |
| Consequences | Life redesign | • Be assimilated into the environment  
• Redesign of life due to disease |
| | A journey of life in a limited time | • Hope for the rest of life |

diagnosed with lung cancer. For this reason, the fact that I was diagnosed with lung cancer was a stigma and also produced feelings of sympathy. Some participants avoided or appeared to be reluctant to disclose their diagnosis to others, while some reported feeling stigmatized or refused to accept sympathy.

Now I’m thinking, anyway, I’ll be treated, discharged, and return to the hospital when it’s time. Someday I’ll die, but that’s my destiny. I think positively like that (Participant 2).

I’m here because I have to live. I should live, too...so I am just putting up with it and getting treated (Participant 7).

2) Hit by a bolt out of the blue,

Participants diagnosed with lung cancer sometimes distance themselves from friends and relatives. Though the people that visit them act in an ordinary manner, some participants become self-conscious. This study found that participants reflect on themselves, ruminating over whether they were careless with their health prior to their lung cancer diagnosis and why their health deteriorated.
diagnosed with lung cancer although they predicted it, particularly when their cancer was in its late stage. They used to smoke and drink a lot and remained indifferent to their health (e.g., grilled meat using nearby stones while working in a poor environment like a construction site). Another participant who was shocked by the diagnosis had been healthy, and spent time hiking, exercising, and swimming. However, he/she was frustrated when unexpectedly diagnosed with terminal lung cancer after going to the hospital for leg pain. The test for lung cancer itself was a shock to participants. Moreover, it was traumatizing to hear the doctor report “there is no cure” for stage 4 cancer. Therefore, we could examine participants feelings of being “hit by a bolt out of the blue,” as it were, as the disease had emerged amidst their indifference and their vague fears were manifested in reality.

I was very surprised. Everything went black (Participant 7).

It’s a loss. It’s just like the sky is falling down, and the sense of loss was no joke. When I woke up, I wondered whether “Is it a dream?” or “Is it a reality?” It was that hard (Participant 3).

3. Contextual Conditions
1) Encounter with reality.

This study found that participants had difficulties engaging in the tests and the processes that were part of hospitalization after their lung cancer diagnosis. In the case of fasting for examinations, participants experienced feeling hungry and feared their body would become weaker by fasting combined with their already-reduced appetite due to the disease. Participants were also forced to follow the hospital schedule, and breakfast was served when nurses came on to the ward, despite patients experiencing symptoms such as shortness of breath that sometimes prevented them from falling asleep until dawn. In addition, some participants were accustomed to planning their daily lives and expected this to continue during hospitalization. Nevertheless, they complained about the inconvenience of the hospital system, as it neither notified them in advance with instructions during hospitalization nor informed them of their test results immediately. Some participants had difficulty adjusting to the changing daily schedules, particularly because their radiotherapy bookings were inconsistent, and treatment was often administered either too early in the morning or too late in the evening.
I was short of breath, so I couldn’t sleep until 2 am. I was barely able to fall asleep, but I had to wake up when the breakfast was ready, and nurses came to check our health status. There is a mismatch between me and their work schedules—so I have to be dragged (Participant 9).

2) Breaking down the wall of fear.

Participants reported they needed to be informed of their disease course and the medical and nursing behavior of medical staff due to hospitalization. One participant, younger than the others, felt it necessary to know and cope with the course of his/her disease. He/she also hoped to be informed every few months about the ongoing development of new drugs and technologies related to cancer treatment. This participant also reported that he/she felt if patients were informed in advance about the side effects of their medicine at each stage of the treatment, participants could come to the hospital as soon as they presented with symptoms, which could help them more efficiently cope with side effects. Participants began to search for relevant information about lung cancer after diagnosis and were able to confront their fear of the disease by communicating with medical staff about their questions.

I hope to get to know how it’s going on in what area. Older people may be wrong, but I’m a little younger, from my point of view. Isn’t it right? (Participant 3).

I want to know for sure about my illness. What is in what area, and how future treatment plans will work: ‘If you know these things, you feel the difference each time you are admitted (Participant 1).

I’m a cancer patient now. New drugs, new technologies, and such things keep coming out. Among the new drugs, such and such drug came out according to the type of cancer cells in the body. It would be good to receive an explanation about this every few months (Participant 4).

I wish that the medical staff would inform me of the side effects of each particular stage of taking the medicine. Then, I can come to the hospital as soon as I have symptoms (Participant 8).

4. Intervention Conditions

1) Finding comfort in adversity.

Most participants are hospitalized with other patients on a multi-bed ward. Therefore, each patient reported a lot of stress from interacting with other patients according to their disease state. When they inevitably sleep face-to-face, albeit in separate beds, participants sometimes cover their noses with their blankets in fear that they may inhale the next patient’s breath. In the case of patients in more advanced stages of the disease, they have respirators and make the sounds of sputum discharge at night, preventing patients on the same ward from sleeping. However, many patients did not complain and tolerated it because they felt ultimately, they would face similar circumstances.

The status of patients sometimes gets better or sometimes worse. I need to sleep, but I hear a noise from the side, and I’m not feeling well. Living together in a hospital with other patients was not good (Participant 4).

We are seriously ill, but some of us are more seriously ill. They’ve got respirators and spit out phlegm. The whole room is sensitive because of one person and we can’t sleep. I just put up with, though, because we’re “the same patient.” (Participant 3).

2) A loaf of bread is better than the song of many birds.

Some participants had never worried about eating well before being diagnosed with lung cancer. However, many participants came to recognize the importance of eating well to endure chemotherapy after their diagnoses. Therefore, medical staff and patients emphasized they can endure the disease through “eating well” and patients try to eat, even if they are tearful from the pain they experienced due to radiotherapy when swallowing food. When participants struggled to eat owing to the side effects of anticancer drugs, they endured eating what they wanted to eat and even went out to maintain their strength.

Where were the side dishes in the old days? The circumstances were poor, so I ate it all with red pepper paste only. But now, to endure chemo, I had to eat well first (Participant 3).

Doctors, nurses, and other patients said, “Eat well.” So, I ate whatever while in tears (Participant 1).

3) The communion of same situation.

When participants were hospitalized as lung cancer patients, they at first had thoughts such as “Why do I alone get this pain and treatment” and “Why am only I suffering from this?” However, as they examined their inpatient experience and established a consensus with each other,
the became aware of patients with the same condition and felt sympathy for them as they endured the same pain over time.

At first, I thought about cancer, “Am I the only one?” Over time, as I got to know the patients suffering from the same disease, I learned that most of them are suffering, too. It was really hard the first and fourth time I had chemo in particular...I had to overcome it (Participant 6).

5. Action/Interaction Strategies

1) A word of encouragement.

It is considered that participants were comforted by encouraging words such as “I know you are tired” or “hang in there” when talking to the nurses during their hospitalization. In addition, after hearing positive words such as “you will be fine soon,” participants began to feel confident in their recovery, and were grateful to the nurses. This implied that participants not only wanted the physical care provided by nurses but also emotional support.

Yes, right. I’ll be okay, as the nurse says. I feel confident at some points, so I’m always grateful (Participant 6).

Patients need smiles and a few words, even if not many. I can be impressed by a word, so I think it is necessary (Participant 5).

2) Sharing information.

Participants had difficulties initially owing to the use of a multi-bed ward. However, as time passed, participants were able to adapt to each other and share information related to the disease. It was found that as participants interacted with each other and commiserated as patients with the same disease, they asked more questions and listened more, thus sharing information among themselves regarding insurance, what is good and bad for disease management, and chemo drugs and tests.

As we live in the same room as five people other people, we exchange phone numbers and talk to each other in the Kakao Talk chat room, about insurance, illness...well...I say, “I’m getting better through this.” A disease is not cured purely on effort...um...I think so. In my case, I tell other people that drinking a lot of water makes me feel better. I tell them to drink a lot of water when the color of their urine is not good (Participant 1).

We talked to each other—“Why are we not treated through this drug?” and worried. Is this an immunocancer drug or a catalyst? That kind of thing. Well, we heard something like that, not from a doctor or nurses, but from patients (Participant 10).

3) Accepting the wave of change.

Participants reported that they could better adapt to the tough hospital life when the nurses provided tailored explanations of their health and care during hospitalization. First, nurses recognized when participants felt that their health was gradually recovering through the management of their health during hospitalization, reassured them, and provided encouragement. Nurses even informed the participants that taking showers or baths depending upon the weather would be beneficial. Second, participants were grateful for when nurses provide detailed explanations of nursing care and counseling on things that the patients should keep. Participants also reported they found nurses to be very kind, as they answered various questions even if they were annoyed with them. This suggested that nurses should meet the needs of patients by providing them with explanations regarding their treatment, and this is an obligation that must maintained and delivered at a level suitable to patients.

They are kind and always bright... If the patient has a concern, please describe it in general terms, not medical terms so that we can easily understand the concern (Participant 10).

Because of my personality, I have to know what this medicine is used for. Whenever I ask, they explain it to me (Participant 4).

“Oh, you have improved a lot.” They give me these kinds of comments (Participant 10).

6. Consequences

1) Life redesign.

Participants came to comprehend their situations through their experiences of hospitalization as lung cancer patients and tried to live positively even when faced with the fact of their limited mortality. In addition, we learned that participants prepared to reorganize their life while informing their children about their preparation and decisions for their future. One participant described the psychological pressure as being “experienced like explosives or dynamite in his/her chest” although he/she had lived a relatively quiet life two years prior, and he/she was “shaken up a lot” at first.
I feel now I should have time to reorganize things. There is no such thing to be scared (Participant 2).

It’s hard because I feel the pressure like explosives or dynamite in my chest (Participant 3).

2) A life journey with limited time.

Participants were positive about the lives they had lived through their inpatient experience and thanked their children for their well-being. Since they were aware that their life would end, they thought they should be prepared. Participants also dreamed of traveling with their family for the remainder of their lives. They were prepared to plan a journey for their lives in a limited amount of time while reflecting on their life so far through the lens of their hospital experience.

Well, while I’m alive, I am thinking of family road trips (Participant 2).

**DISCUSSION**

Based on the results derived from the grounded theory method, the central phenomenon of the experience of inpatient life of lung cancer patients was derived as a substantive theory of “living in a body that is not related to one’s own will.” It was found that participants lived under pressure or psychological burdens due to continuous hospitalization after being diagnosed with lung cancer. Previous studies have reported that patients tend to reaffirm their willingness to fight the disease after avoiding social relationships or feeling hopeless once their daily life was limited owing to hospitalization, which is similar to the findings of this study. As such, although diagnoses of cancer vary, physical changes, eating habits, environmental changes, sociocultural aspects, and emotional distress experienced by individual cancer patients are relatively similar. Therefore, it would be appropriate and necessary to develop nursing interventions that target each of the particular symptoms present in cancer patients.

“hit by a bolt out of the blue” and “a disease that I do not want to inform others of” were revealed as causal conditions. It was found that patients face their first crisis through their immediate experiences of everyday life that contrast from their past lives; they are hospitalized in a cancer treatment facility and nursing while avoiding extant human and social relations due to the psychological stress and despair caused by the diagnosis. This finding was similar to those of previous studies that reported the experience of patients’ everyday lives being disrupted during cancer treatment. In addition, participants were found to have fears that their lung cancer would not being cured, similar to the results of a previous study that observed a loss of self-esteem related to diagnosis. Participants who had smoked in the past considered the diagnosis to be closely related to their habits and felt guilty. Therefore, it is necessary to provide nursing interventions that can adapt to each stage of cancer, without patients avoiding social interactions, by providing psychological support to patients.

One contextual conditions related to the central phenomenon was “encounter with reality.” Participants were admitted to a hospital that provided a different routine from that of their usual lives. As a result, we found participants had difficulties in adapting to the new schedule of hospital life, similar to the findings of previous research that reported cancer patients faced difficulties adjusting to hospitalization. If patients struggle to adapt to hospital life, it affects their treatment process and acts as a stressor that eventually lowers their quality of life. Therefore, it is necessary to make an effort to improve the clinical field and hospital system to solve these difficulties to help lung cancer patients adapt to hospital life.

Another contextual condition related to the central phenomenon in this study was “breaking down the wall of fear.” Unlike the findings of previous studies, we found that participants wanted to be treated and cared for while also receiving information on their treatment process. Previous studies have also shown that patients’ perceptions of their diseases were actively engaged in the treatment process increasing the effectiveness of treatment. Therefore, it is necessary for nurses to provide appropriate information on interventions to lung cancer inpatients along with relevant information and coping strategies for side effects. In previous studies, appropriate treatment was available via telephone consultation on side effects post-chemotherapy. This was similar to findings that communication between nurses and patients was a channel for patients to obtain medical information and played a role in improving treatment outcomes and enabling better health care.

Participants expressed “finding comfort in adversity” and “the communion of same situation” as intervening conditions. This could be explored through the similar experiences of other lung cancer patients, and is in line with the findings of a previous study that cancer patients establish a consensus that they are not alone by experiencing the same disease. Another intervention condition was “a loaf of bread is better than the song of many birds,” which can be seen as representing the
process of changing patients' diets to focus on disease management. This was similar to previous studies showing that nutritional education for cancer patients is carried substantively and these patients receive high levels of nutritional health promotion. In the case of cancer patients, nutritional status was improved as a result of such a nutrition education program. This was also shown in a previous study indicating that the better a patient's nutritional intake, the better his/her progress of treatment. Thus hospital staff, including nurses, need to provide ongoing nutritional interventions for patients with lung cancer.

This study explored the experiences of participants that responded positively to the comforting words of nurses and acquired emotional support through accepting "a word of encouragement" and "accepting the wave of change" as action/interaction strategies. We found that, in some respects, warm emotional support from nurses was as significant to the participants as the physical care they received. Previous studies also showed that words of comfort from medical staff are needed, indicating that medical treatment itself is not everything.

Another action/interaction strategy used by participants in this study was "sharing information" to positively accept hospitalization through interaction with other patients. This helped patients answer their own questions through sharing information with each other, as well as obtaining and exchanging new information. Here, the meetings of lung cancer patients have to be systematically managed. This also indicates the need for providing education through information graphics that are easy for patients to understand, since cancer patient are physically and emotionally vulnerable and accurate information delivery is important. It is also important to identify patients' individual levels of health literacy when providing them information. Even though it was thought that nurses provided information at the patients' eye level, it showed a difference from what the patient understood. Therefore, since exchanges with patients at the same eye level are considered to be more active, this needs to be encouraged to provide emotional support to patients. However, there is also a need to provide educational programs so that patients do not receive incorrect information.

"Life redesign" and "a journey of life in a limited time" were derived as the consequences of using action/interaction strategies by participants of this study to reflect on their life so far, make new plans, and spend the rest of their lives with their families. This is in line with previous findings that cancer patients focused on living in the present and pursuing meaning in life rather than on their disease. Participants in this study experienced a change in their attitudes toward life as they experienced the changes brought on by lung cancer, meaning that cancer patients changed their perspectives to deal with their new situation. This finding can be viewed in a similar context as patients "redesigning" the rest of their lives and becoming open to the journey of life in a positive way.

In summary, we found that lung cancer patients wanted to escape from their fears and surroundings during the course of their diagnosis, hospitalization, and treatment. However, as time passed and they adapted to hospital life, they made an effort to manage the disease and overcome their fears. They experienced a series of processes aimed at redesigning the rest of their lives through the support of their family and their surroundings. Based on the results of this study, nurses providing care for patients with lung cancer should identify and solve the problems that patients experience during the hospitalization process after they receive a lung cancer diagnosis. It is necessary to help patients accept the disease in a positive way without avoiding reality when they are initially diagnosed with lung cancer and experience despair. In addition, interventions such as providing nursing services suitable for patients with lung cancer, offering emotional support, and developing a comfortable home-like environment that can reduce the inconvenience of multi-patient hospital rooms are needed so that lung cancer patients can adapt to their lives in the limited space of the hospital. It is necessary to provide nursing interventions for a systematic and efficient second life design that can redesign patients' lives in a limited time.

This study is limited in its capacity to generalize as the patients with lung cancer studied were from only one cancer treatment hospital in South Korea. Therefore, further studies will be needed to compare the experiences of patients with lung cancer hospitalized in a variety of cancer treatment hospitals.

**CONCLUSIONS**

The experience of lung cancer inpatients explored in this study are meaningful because they provide a foundation for nurses to identify patients' difficulties and coping processes, as well as help provide appropriate nursing interventions according to a patient's cancer stage. Based on the results of this study, we would like to make the following suggestions. First, we suggest that research should be conducted in such a way that patients are actively involved in their treatment during their hospitalization, and that nurses use intervention programs to identify and solve problems that patients experience over the course of hospitalization, particularly while experiencing despair post-diagnosis. Second, it
is necessary to improve the hospital environment to help patients adapt to living with other patients in a limited space. Third, the hospital system needs to be improved to respect the individuality of the patients. Finally, there is a need to conduct research on the development of programs that can provide efficient and systematic nursing interventions to help redesign the lives of lung cancer patients.

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